

## **CLAIMS**

1. A method of image improvement in a virtual presence architecture (VPA), the method comprising:

a host computer in communication with a virtual presence server (VPS),  
a remote computer in communication with a virtual presence client (VPC),  
on each new screen resolution that is received by a VPS, adjusting a screen border  
to correspond with the new screen resolution;  
identifying whether the adjusted screen border is near an expected location; and  
if no border is found close to the expected border location, discarding the adjusted  
screen border and loading a predetermined set of values for the screen border instead.

2. The method of claim 1, wherein the predetermined set of values for the screen border  
is the Video Electronics Standards Association (VESA) set of standard values.

3. The method of claim 1, wherein the adjusting is performed by setting a capture engine  
to move the screen down and to the right.

4. The method of claim 1, wherein the user is prompted to manually adjust said plurality  
of borders of a screen corresponding with the new screen resolution.

5. The method of claim 1, wherein the VPA automatically adjusts said plurality of  
borders of a screen corresponding with the new screen resolution.

6. A method of image improvement in a virtual presence architecture (VPA), the method comprising:

entering a phase locked loop (PLL) adjustment cycle each time a new screen resolution is detected;

trying a range of PLL values to detect a best value;

capturing two screens and comparing them;

if no acceptable match is found by the comparison, adjusting the tile color sensitivity and trying a complete set of values again; and

if no acceptable match is found again, reverting back to a set of factory settings.

7. The method of claim 6, wherein if during the screen capturing the captured screens include a number of randomly scattered color tiles above a threshold value, interpreting said tiles as noise and filtering the tiles out of the image.

8. The method of claim 6, wherein if during the screen capturing the captured screens have less than a threshold value of difference between each other or if less than a threshold value of color tiles are changing, the changes in the screens will be interpreted as real video data changes.

9. The method of claim 8, wherein step of the trying of a range of PLL values includes the step of capturing two screens and comparing them.

10. The method of claim 6, where the step of capturing and comparing takes place on two screens within 25 milliseconds of each other.

11. The method of claim 6, wherein on a subsequent try of a range of PLL values, a different algorithm is used than on an initial try of a range of PLL values, and further comprising:

examining an area and a number of changes in the color tiles of two screens to determine if the changes are the result of a PLL lock or valid data changes; and

if the changes are a result of a PLL lock, adjusting the PLL parameters.

12. The method of claim 6, wherein the VPA comprises a host computer communicating with a virtual presence server and a remote computer communicating with a virtual presence client, the method further comprising:

causing the virtual presence server and the virtual presence client to communicate, thus allowing remote access to the host computer.

13. An apparatus for image improvement in a virtual presence architecture (VPA), the apparatus comprising:

a host computer in communication with a virtual presence server (VPS),

a remote computer in communication with a virtual presence client (VPC),

at least one from the group consisting of:

a system for entering a PLL adjustment cycle, or

a system adjusting a plurality of borders of a screen,

to provide image perfection in the virtual presence architecture on each new screen resolution that is detected.

14. The apparatus of claim 13, wherein said PLL adjustment cycle captures and compares two screens that are to be displayed within a certain amount of time of each other.

15. The apparatus of claim 14, wherein if said captured screens include a number of randomly scattered color tiles above a threshold value, interpreting said tiles as noise and filtering them out of the image.

16. The apparatus of claim 14, wherein if said captured screens have less than a threshold value of difference between each other or if less than a threshold value of color tiles are changing, the changes in the screens will be interpreted as real video data changes.